



## Electrical Engineer

### Job Overview

The Electrical Engineer is part of the sales and fulfillment team that delivers Northern Reliability engineered solutions. The Electrical Engineer works with the client, sales engineer and project manager to provide electrical designs for energy storage solutions for the NRI customer solution. After the sales capture, the position is an integral participant in the EPC (*Engineer, Procure, and Construct*) design and fulfillment process. The critical function of the electrical engineer is to provide both AC and DC electric engineering solutions to the team.

Work is primarily office based out of our Waterbury, Vermont office. However, during system construction and integration, you may be required to travel outside of the office environment and help assemble or troubleshoot a system in the field.

### Responsibilities and Duties

Primary responsibilities include both AC and DC electrical designs and wiring schematics for the NRI battery enclosures and shelters. Design of battery charge and discharge mechanism.

- Work with the sales and applications engineering team to develop proposed concepts and solutions to aid in sales capture process.
- Upon contract award assist mechanical engineer in preparing general arrangement (GA) designs for customer application, develop single line schematics.
- Oversee development of concept into final solution.
- Prepare electrical engineering designs for fabrication on remote power systems including AC distribution, DC distribution and small system controller power systems.
- Prepare electrical design and assembly drawings for in house fabrication.
- Perform fault current analysis and arc flash hazard of system designs, including inrush mitigation, circuit protection scenarios (fuse and breaker selection, coordination) and supplemental grid parity solutions.
- Participate in component selection process and procurement.
- Work with team to further develop product line and cost reduction strategy.

### Reports To

The position will report to the Director of Engineering.



## Qualifications

Candidate should have had coursework in or be familiar with electrical engineering principles including the use of software to effect designs. The ideal candidate will possess the following knowledge, skills, and abilities:

- General understanding of renewable energy including AC and DC electricity.
- General understanding of battery chemistry including, charging and discharging scenarios as well as C factor.
- Familiarity with 3-phase power systems, low and medium voltage design concepts with an emphasis on electrical distribution and cable sizing/selection.
- Familiarity with National Electric Code (NEC).
- Familiarity with Programmable Logic Controllers, SEL RTACs and protective relays, and power system controls products and configuration/programming concepts.
- Familiarity with OSHA and/or utility safety culture desired, safety minded.
- Ability to read and understand blueprints, drawings or schematics, or the ability to learn.
- Ability to read and interpret industry standards and codes such as NFPA 855 and UL 9540.
- Familiarity with office productivity software, including MS Word, Excel & Power Point.
- Familiarity with design software tools such as Solidworks Electrical, Draft-Site (2-D cad), SKM/PTW, Python, Matlab or similar, is preferred.
- PE licensed or ability to pursue licensure is desired but not required.

## Physical Requirements

- Hearing and vision within normal ranges, with or without corrective lenses or an assisted hearing device.
- Some heavy lifting is expected; occasional exertion of up to 50 lbs. of force may be required.

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